

Notice of Allowability

Application No.

09/544,167

Applicant(s)

URUSHIYA, HIROYUKI

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 2/6/2006 & phone interview on 3/3/2006.
2. ☒ The allowed claim(s) is/are 1,33,35,37 and 38 (renumbered as claim 39).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 2/6/2006, with respect to claims 1, 33, 35, 37 & 38 have been fully considered and are persuasive.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jennifer Reda on 3/3/2006.

The application has been amended as following:

In the abstract:

The last sentence "The defective pixel signals in the image signal are then replaced by corresponding corrected defective pixel signals." has been removed.

In the claims: (note that changes are underlined)

Regarding **claim 1**:

In lines 14-16 of page 2, the limitations "said block-forming means defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels" have been amended as -- said block-forming means

defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels based on said pixel signal --.

In line 20 of page 2, the limitations "the plurality of defective pixels and peripheral, non-defective pixels" have been amended as -- the plurality of defective pixels and the peripheral, non-defective pixels --.

In lines 1-7 of page 3, the limitations "correction means for correcting the defective pixels by using the peripheral pixels of the defective pixels, wherein said correction means corrects the plurality of defective pixels within the block based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels" have been amended as -- correction means for correcting the defective pixels by using the peripheral, non-defective pixels of the defective pixels, wherein said correction means corrects the plurality of defective pixels within the block based on the positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels."

Regarding **claim 35**:

In lines 8-10 of page 4, the limitations "said second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels;" have been amended as -- said second step including

defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels based on said pixel signal; --.

In lines 11-20, the limitations “a third step, of storing positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and a fourth step, of correcting the defective pixels by using the peripheral pixels of the defective pixels, wherein, in said fourth step, the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels.” have been amended as -- a third step, of storing positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and a fourth step, of correcting the defective pixels by using the peripheral, non-defective pixels of the defective pixels, wherein, in said fourth step, the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels. --.

Regarding **claim 37**:

In lines 4-5 of page 5, the preamble “A storage medium storing a program which comprises:” has been amended as -- A storage medium storing a program executed by a processor comprising: --.

In lines 13-15 of page 5, the limitations “said second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels;” have been amended as -- said second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels based on said pixel signal ;--.

In line 18 of page 5 to line 7 of page 6, the limitations “a third step, of storing positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and a fourth step, of correcting the defective pixels by using the peripheral pixels of the defective pixels, wherein, in said fourth step, the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels.” have been amended as -- a third step, of storing positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and a fourth step, of correcting the defective pixels by using the peripheral, non-defective pixels of the defective pixels, wherein, in said fourth step, the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels

and the peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels. --.

Regarding **claim 38**: this claim is *renumbered* as claim **39** since claim 38 was previously canceled by the Applicant's response filed 7/2/2004.

Allowable Subject Matter

3. Claims 1, 33, 35, 37 & 38 (*renumbered as claim 39*) are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record fails to teach or fairly suggest the *combination of all limitations* required in claim 1 that includes "...said block-forming means defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels based on said pixel signal; storage means for storing positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and correction means for correcting the defective pixels by using the peripheral, non-defective pixels of the defective pixels, wherein said correction means corrects the plurality of defective pixels within the block based on the positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels."

Regarding claims 35 & 37, the prior art of record fails to teach or fairly suggest the *combination of all limitations* required in each of claims 35 & 37 that includes "...said

second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels based on said pixel signal; a third step, of storing positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and a fourth step, of correcting the defective pixels by using the peripheral, non-defective pixels of the defective pixels, wherein, in said fourth step, the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and the peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels.”

Regarding claims 33 & 38 (*renumbered as claim 39*), these claims directly depend from claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



DAVID OMETZ
SUPERVISORY PATENT EXAMINER